

# Exploration of an agenda for transparency in the construction industry

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**Abstract:**

*Purpose*

In enhancing the market operation of the building sector, transparency is of great importance. The objective of this article is to propose an inventory of aspects of the relationships between public clients and executing parties that have the most urgent need for greater transparency.

*Methodology / approach*

The main methods used include a conceptual analysis and twenty interviews with managers of various organisations in the construction industry.

*Findings*

Based on this study, four essential points for transparency have been determined: openness about risks and costs, measuring of quality-price ratios, reasons for award or rejection and enhancement of the reputation mechanism.

*Research limitations / implications*

This study takes the Dutch context as a reference point for the analysis. When the findings are used also in other settings, it is necessary to address the differences in characteristics of the building sector.

*Practical implications*

The essential points for transparency addressed in this paper have consequences for especially the interaction between public clients and executing parties. Furthermore, conditions for transparency - like possibilities to judge quality in a more robust and transparent manner and methods for enhancing the reputation mechanism - point at necessary future research for improving transparency in the construction industry.

*Originality / value of the paper*

The Dutch construction industry is working through a transition process focused on improving its market operation, integral processes and societal added value. In this transition, transparency between clients and executing parties is of great importance.

*Keywords:*

Transparency, construction industry, public clients, risk management, quality-price ratios, reputation

*Categorisations of the paper:*

Research paper

## Introduction

The construction sector in the Netherlands is experiencing a process of transition following the recent history of construction fraud that came into sight in 2002. 'Construction fraud' is a translation of the Dutch term for all illegal activities by building companies and clients, that are aimed at reducing the effectiveness of market forces in the construction industry and so reducing risks, increasing profits or enhancing continuity (Priemus, 2002). This has especially involved three activities (Blok and Graafland, 2004).

- informal preliminary consultations prior to the submission of an official tender (legally forbidden since 1998) through which the 'competing' contractors collectively determine who is going to execute an order and at what price.

- the use of fictitious invoices and complete sets of double accounts.
- the acquisition of information about the maximum available budget of a client by establishing relationships with contact persons who pass on this information in exchange for some private reward.

The costs of the construction fraud in the Netherlands have been estimated at 1,5 billion euro (8,8% of the output of the construction sector) (Graafland, 2006). This situation has various antecedents reflecting the nature of the building process and market form, like the high level of uniqueness of projects; the fragmentation in the building process; large investments and a fixed price before the product has actually been produced and the actual costs are known; and the business culture of construction companies that values freedom rather than rules and paperwork (Van Waarden, 2003).

After it surfaced in 2002 that illegal price agreements were being made between construction companies on a grand scale, a breach of trust arose between clients and contractors (Graafland, 2004). A thorough investigation was conducted by the Dutch parliament, the justice department and the Institute for Fair Competition[1] resulting in approximately €500 million of fines and claims (FD, 2005). Furthermore, in order to restore trust, a so-called "Regieraad" [Management Council] was formed by the government and the construction sector. According to the Management Council (Regieraad, 2005), processes in the construction industry are highly intransparent. Examples are the development and the structure of prices, the allocation criteria being used by clients and the measurement of performance. It is therefore not surprising that the Management Council has selected transparency in transactions with external parties as one of the three pillars in the transition process for the construction industry - along with innovation and a good price-quality ratio. Transparency contributes to creating trust between the various partners in a building process by making actions verifiable.

**T**he need for greater transparency in the construction sector is not limited to the Netherlands. All over the world the construction sector is known for its low transparency. This is illustrated by Table 1 reporting the ranking of sectors with respect to the so-called Bribe Payers' Index (BPI) of the Gallup opinion surveys:

**Table 1 Bribe payers' index[a]**

| | | | | | |
|---|---|---|---|---|---|
| Agriculture | 5.9 | Banking and Finance | 4.7 | Telecoms | 3.7 |
| Fishery | 5.9 | Heavy manufacturing | 4.5 | Real estate | 3.5 |
| Light manufacturing | 5.9 | Pharmaceuticals | 4.3 | Oil and gas | 2.7 |
| Forestry | 5.1 | Transportation/storage | 4.3 | Arms and defense | 1.9 |
| IT | 5.1 | Mining | 4.0 | Public works/construction | 1.3 |
| Civilian aerospace | 4.9 | Power generation | 3.7 | | |

[1] A translation of the Dutch organisation Nederlandse Mededingingsautoriteit (NMa)

[a] Score in 2002, ranked in order from least to most inclined: perfect score for absence of bribery would be 10. Source: Transparency International (www.transparency.org)

The BPI shows that the most flagrant corruption is seen in the public-works and construction sector. Based on a sample of 184 construction companies in 44 countries around the world, a study of Price Waterhouse Coopers (2003) indicates that the most prevalent types of fraud are asset misappropriation and corruption and bribery.

Recently, several initiatives have been started to improve the transparency in the construction sector. A well-known example is the so-called rethinking construction initiative in the UK (Egan, 1998). As a result of this report, the so-called Movement for Innovation came into existence that encouraged companies to come up with innovative ways of procurement within the industry through partnering and supply chain integration. A recent case study by Khalfan and Dermott (2006) shows that the strategic partnering framework adopted by some companies does not only lead to more transparency (through the use of open book accounting systems), but also to improved design through sharing of knowledge in the pre-project phase, less waste and duplication by saving on tendering, improved delivery, greater quality, greater certainty of cost as well as future work and more trust between clients, contractors and subcontractors.[2] Also in other countries initiatives have been undertaken to improve transparency in the construction sector. To illustrate, in Denmark a tool to make the procurement process more professional has been developed (Byggeriets Evaluering CenterPublic). The Danish government and the construction sector has enforced the use of a benchmarking book to all companies in the public market. It contains the scorings at building sites regarding deadlines, quality, work environment, efficiency, earnings, customer satisfaction and price. From July 2005 companies with more than 10 employees must have such a book of marks to be able to bid on public tenders.[3] [4]

The objective of this article is to propose an inventory of aspects in the transactions with external parties in the construction industry that need greater transparency. For this reason, we performed interviews with twenty managers that represent various stages in the building process in the Netherlands. We focus on the relationships between public clients and executing parties, because the interviews indicate that this type of relationships are in greatest need for enhanced transparency.[5] A major reason for this is that in this part of the construction industry works are allocated among construction companies by use of tendering procedures. This market form promotes fierce competition that is concentrated on making a sharp offer

[2] Innovation in procurement procedures is also undertaken in the US. For an evaluation, see Wardani et al (2006).

[3] Another example is a benchmark developed in Hong Kong that identifies best practice measures of construction time performance (CTP) for use by clients, consultants and contractors in the construction industry (Chan and Chan, 2004). Transparency International describes initiatives in several other countries that aim at improving the transparency in the construction sector. See the website:
http://www.transparency.org/news_room/in_focus/2006/construction#readings

[4] For academic studies on benchmark tools for the construction sector, see for example Stewart and Waroonkun (2007) and Lau et al (2005).

[5] In this respect we would note that the interests, on an aggregate level, of project developers, constructors and advising engineering companies are fairly similar and can therefore all be accommodated within the category of "executing parties".

price. This has stimulated companies to the practice of preliminary consultations described above. [6]

The content of the paper will be as follows. First, we elaborate on the method and sample that we used to answer the research question. Next, we present a conceptual framework that forms the theoretical background of the relationship between transparency and market operation. This framework distinguishes two types of transparency: information prior and during the contract period and information about past performances. Section three presents a list of criteria to determine aspects in the construction industry that require more transparency. Section 4 describes the aspects that require more transparency to be delivered prior to and during the execution of contracts. Section 5 comments on enhancement of transparency of performances from the past. Section 6 summarises the conclusions.

## Method and sample

The methodology used in this research included a conceptual analysis and twenty interviews with the managers of various organisations in the construction industry.[7]

The conceptual analysis has resulted in a framework that links transparency to market operation and trust (see below). The framework is used as a background for determining what kind of issues should be on an agenda for transparency. This is addressed in the interviews.

For the interviews we selected representatives of the Dutch construction sector. The objective of the interviews was to carry out an exploration of the perceptions that exist in the Dutch construction industry with regard to transparency, market operation and trust. Since it takes a lot of time to get the participation of high level managers and to arrange an interview, the sample size was limited to twenty interviews. This means that the research has an explorative character and does not give a full representative picture of the Dutch construction industry. KDO-advice, a consultancy bureau on sustainable development and the use of space for the Dutch construction sector, selected the interviewed managers. The criterion for selection was obtaining representatives from all major segments of the Dutch construction sector, ranging from customers to the suppliers of building companies. By selecting representatives from different segments, we sought to expose any biases related to specific interests. We also included some managers from branch and research institutes in the construction sector, because they are less directly involved in business and particular business interests may less distort their views. The interviews were face-to-face, guided by a list of open questions, leaving space of explanatory questions and illustrations. The interviews were

[6] Another way of escaping the pressure of competition, often used by construction companies, is to make use of the information asymmetry between construction companies and their clients. The builder often knows the technical possibilities and the building circumstances better than the client, and every inconsistency or omission in the specifications of the building plan is seized upon to claim additional work at a high profit rate. This also contributes to distrust in the relationship between building company and client and explains the call for more transparency.

[7] Furthermore, we also received feedback from various group discussions of the so-called Transparency Table, consisting of fifteen representatives of key players in the construction sector.

carried out in September and October of 2005. Table 2 presents information about the types of business and functions of the respondents.

**Table 2 Sample of respondents**

| **Type of organisation** | Customers | Engineering firms | Building enterprises | Suppliers of building enterprise | Branch and investigation organisations |
|---|---|---|---|---|---|
| **Number of interviewees and their positions** | 3 Directors<br>2 Managers | 1 Director<br>2 Managers | 4 Directors | 2 Directors | 2 Directors<br>2 Managers<br>1 Secretary<br>1 Journalist |

## Transparency, reputation and market operation: a framework

Transparency has become an important theme in the US, the European Union and developing countries, as policy makers see the shortcomings of conventional market operation (Fung, Graham and Weil, 2002). A transparent organisation provides insights into issues that are relevant for the parties involved (Kaptein, 2003). Such insights are necessary if one is to take well-considered decisions and be accountable for them. The relevant parties include all sorts of groups that are influenced by the actions of the organisation, such as suppliers, employees, clients, competitors, the government and the public in a wide sense. In this multi-actor environment, under ideal circumstances the various parties in this process would be optimally informed so that they could make choices that yield the greatest benefit for themselves.

In order to explore limits and possibilities to increase transparency in the construction sector, it is necessary to position this in a broader framework, because increasing transparency should never be an objective in itself. In a business context transparency should first and foremost be understood as a mean to build trust between market parties and improve the efficiency of the market operation. In this section we present a model that links transparency to trust and better market operation (see Figure 1). This framework has been developed by combining literature on perfect market operation (Browning and Zupan, 1996), transaction costs and implicit contracts (Williamson, 1985; North, 1990; Van de Klundert, 1999), reputation and the role of values and norms (Bovenberg, 2002; Graafland and Smid, 2004), trust and mutual dependency (Klein Woolthuis, 2003) as well as current and emerging practices in the Dutch construction sector to which the interviewees referred.[8]

[8] For a more extended analysis, see Graafland and Nijhof (2007).

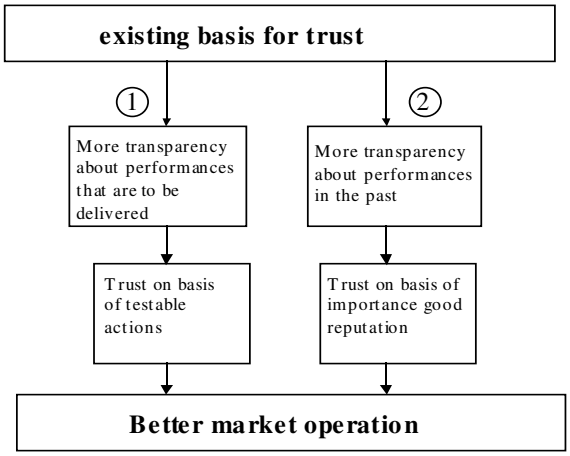


*Figure 1: Transparency in transactions, trust and market operation*

The demand for transparency often arises if the confidence in an enterprise or sector has been damaged. Offering more information in advance or during the transaction may then help to enhance the basis for trust and to further good market operation by making the actions of the company verifiable (arrow 1 in Figure 1). Within this model more transparency means more insight into the award procedure, assessment matrices, price-fixing and claims for additional work. This model fits within the traditional way of doing business in the construction sector and aims to restore trust by increasing information flows and controls. If market parties inform each other properly about the transaction and the expectations they have of each other, both will have the confidence that the transaction is optimal for them in comparison with other alternatives that the market offers.

The first model is particular suitable for standard products that allow a high degree of anticipation. In case of more complex products, production processes and outcomes are less foreseeable. The contingencies of the product cannot be completely arranged ex ante. In order to conclude a transaction, both parties have to trust that each party will constructively cooperate if any unexpected circumstances arise. Macneil (1974, 1980) calls this a relational or implicit contract. In such relations, reputations are of utmost importance. In trade relations where the frequency of repeating bilateral contacts is high, the transaction partners will realise that an unfair treatment of the contract party will strongly reduce the chance of successful cooperation in the future (arrow 2). However, also in non-repeating contacts, this reputation mechanism can be effective because other parties, too, will refrain from transactions with an opportunistic company if a bad performance becomes known at a wider scale (Bovenberg, 2002). The reputation mechanism only works properly if the performances from the past are transparent.

The framework thus suggests two possible routes for improving transparency. The first route is to improve the information stream prior and during the contract period. This will be the subject of section 5. The second route is to enforce the reputation mechanism by improving transparency in the past performances of companies. This will be the subject of section 6.

**Which themes require transparency: a checklist**

Because of the broad context where transparency can be applied, soon a wide range of themes become relevant. The question then presents itself as to how to determine the most relevant themes. Looking elsewhere, we see that, in the framework of developing guidelines for social reports, distinctive criteria have been developed for the provision of information from a business-ethical viewpoint (Zadek et al., 1997; Kaptein, 1998; Hummels and Karsing, 2000; Graafland, 2002). These criteria can also be applied to other forms of information provision.

Criteria that have been proposed include completeness or extensiveness (i.e. all the information that is relevant for the stakeholders about the activities of the organisation is available, clear presentation), comparability (i.e. the data are comparable to data from the past or from other companies), relevance, accessibility, reliability and quality of the information, consistency, verifiability, organisational embedding (i.e. the information is integrated in the systems and structures of the organisation), regularity (i.e. information is provided at regular intervals) and inclusiveness (i.e. the possibility of dialogue with stakeholders). The above-mentioned criteria can, however, compromise each other. For example, offering a vast amount of information may be at the expense of its quality or reliability, and its consistency and accessibility. The greater the amount of information, the greater the effort that is required to check it or make it controllable. Very careful consideration needs to be given to the themes and the way in which information is offered.

In order to systematize this diverse set of transparency criteria, Kaptein (2003) has developed a checklist of criteria for the selection of themes about which information should be provided. To achieve this, he has combined some of the above-mentioned criteria and indicated an order in which they might be applied in the selection of themes and indicators. In each step there is a selection process, until finally only the issues remain that are appropriate for the provision of information.

**Table 3 Checklist for theme selection**

| | Step |
|---|---|
| 1 | Relevance |
| 2 | Responsibility |
| 3 | Emphasis on unexpected developments |
| 4 | Effectiveness |
| 5 | Accountability |
| 6 | Reasonableness |
| 7 | Respectability |

The information must, first of all, be relevant for the stakeholder for whom the information is intended. This will depends on the interests and needs of the parties involved. Therefore, it is important that the company finds out what sort of information the users need. The need for information is often also influenced by current incidents.

The second selection criterion is the extent to which the company bears responsibility for the situation about which information is being provided. This depends on the extent of the involvement of the concerned company. For a product that a company itself delivers, the responsibility is naturally much greater than for an action that only indirectly influences the interests of other stakeholders.

The news value of information that is in accordance with the expectations of the stakeholders is less than that of information that concerns deviations from the expectations and leads to an adjustment of the overall picture. Stakeholders may naturally assume that no news is good news. The company should therefore especially provide information concerning matters of which the stakeholders are not conscious or which deviate from what they expect with respect to efforts and performances by the enterprise, in accordance with the principle of 'comply or complain'. The larger the likelihood, the extent and the seriousness of the deviation of the anticipated contribution, the greater the need for transparency.

The users must not only have a need for the supplied information (Step 1), but the presented information must also be of value to them. Stakeholders should be prepared to use the information. The information should therefore be presented in a clear manner and be accessible by making use of the appropriate media.

The fifth step that Kaptein proposes concerns accountability for the information. This step aims at enhancing the reliability of information. Accountability means that the activities that the company admits to must be measurable, controllable and understandable. Accountability is enhanced by appropriate embedding within the organisation. For information addressed to external stakeholders, external verification is a good means of enhancing the accountability of the information.

Reasonableness means that the information that is asked of a company is reasonable and in proportion to, for example, what comparable companies do and the efforts that stakeholders make to use the information. Reasonableness also has a sense that the company should be able to anticipate that the information that it offers is handled by the users in an

appropriate manner and is not used out of context by the stakeholders to inflict disproportionate damage to the company.

The final decision that companies can make in the choice of information transfer concerns the moral objection that transparency may in some cases be at odds with the right of privacy. Here, too, this requires a consideration of the weighted interests of the parties involved.

## Transparency of future performances

In this section, we will apply the checklist in Table 3 above to transactions between public clients and the various executing parties in the construction industry. In our analysis, we focus on the first step of the checklist: which themes are most relevant in light of the interests of the parties involved? Where relevant, we also add a few remarks about the implications of the other steps in the checklist.

### *Three core themes*

The first step of the checklist requires us to draw up an inventory of the needs for information among the various parties involved. Therefore we held interviews with managers from various categories within the construction industry. The results are shown in Box 1.

The following themes were particularly mentioned by the interviewed people in response to the question as to which parts of the building process needed to become more transparent:

- insights into risks with regard to the performance that is to be delivered and the costs, including those for additional work (some also mentioned profit percentages here, but most respondents do not consider this appropriate);
- insights into the quality-price ratio through a better measurement of quality;
- insights into evaluation on the basis of the client's selection and allotment criteria.

<u>Insights into risks and costs</u>

Building companies do not sell their clients ready-for-use products, but rather perceptions of the final product, the realisation of which is subject to much uncertainty.

For the correct functioning of the traditional tender mechanism with a standard project, it is of great importance that the specifications and the drawings are of good quality. If that is the case, then the building company should be able to come to a realistic price. Contracting out based on price is essentially clear: the party with the lowest price gets the work. This requires the client (or the architect or consultancy firm) to be sufficiently competent. The tender process works less efficiently if the specifications show inconsistencies or gaps. In such a situation, differences of opinion may arise during the building process with possible legal consequences. Costs will become very high if claims are presented immediately something goes wrong. The transparency of the specifications is, therefore, of great

importance for the correct functioning of the tendering process. This applies even more strongly if many parties are involved in the building process and the problems of tuning the information issued to needs become even greater.

### Box 1 What needs to become more transparent? Results of interviews

**Risks and costs**
*Customer*:
'Most distrust exists in the contracting stage and in the additional work process.'

*Consumer organisation:*
'More freedom of choice for the consumer, more insight into the weighing of costs. Clear outlines that must already start in the brokerage stage. Making a profit margin known says nothing.'

*Engineering firm:*
'The pricing must become clearer. But the profit percentage need not be made public.'

*Supplier:*
'With each part of the building process, whether this concerns demolition or building, civil, public or private, the calculation of what everything costs may be made clearer '

*Branch and investigation organisation:*
'It is especially important to make a connection between the investment costs on the one hand and the costs of exploitation and management on the other.'
'In an alliance, possibly with PPS, it is rather obvious that profit percentages are public. In a public tender this is not necessary because market forces cause the profit margin to drop.'

**Quality**
*Customer:*
'What a project needs to cost must not become public in advance. The builder may then keep his profit margin to himself. We must have open talks about price in proportion to quality.'

*Building enterprise:*
'The main barrier is that the construction industry is not yet used to considering quality alongside price. We need to reach good agreements about this with performance indicators.'

*Branch and investigation organisation:*
'We must have a testing system to obtain a clear picture of the price-quality ratio criteria. An independent organisation must develop an instrument with which price-quality can be evaluated.'

**Allotment**
*Engineering firm:*
'The contracting process must be clear …the profit margins do not interest me in particular. With public expenditure, the market does its job.'

*Building enterprise:*
'The criteria that the client applies in the selection of contractors that may tender must be made more transparent. Also the exchange of risk profiles could be done better.'
'The considerations in the selection of the successful bid must become clearer. The multi-criteria analysis used is incomprehensible.'

*Branch and investigation organisation:*
'The tendering stage, as the most complex part of the building process, urgently requires transparency, especially in the preliminary stage when new co-operations arise '

With complex projects, detailed preparation prior to issuing a tender call or responding to it can sometimes be very costly. As a consequence, things are easily overlooked when drawing up a budget. On top of this, the demands of the client – expressed in specifications and drawings - may not be adequately specified and often need to be further elaborated or adjusted during the building process. The unforeseen aspects of the building process are further enhanced by unknown factors such as the weather, the soil conditions at the construction location and also the possible interactions with unpredictable political processes. As a result of these uncertainties, the final costs can sometimes deviate considerably from the agreed price. Consequently, both the building company and the client are eager to limit their own risks as much as possible.

Given this situation, both parties have a great need for information that they can use to limit their risks. In this context, transparency amounts to providing insights into responsibilities. Transparency in how the risks are spread first requires the identification of risks in the form of a risk profile, followed by a professional exchange to appropriately allocate the risks. If a problem is caused by the inadequate performance of the building contractors, then they should bear the associated costs, but if other causes -such as the failure to secure a permit- lead to additional costs, the risks should be borne by others. The second step in Kaptein's checklist also requires the building company to notify the client about any risks in the construction-technical sense, while the client has the responsibility for making any political risks explicit. In the third place, a realistic price must also be paid for bearing the risks.

Through such an early exchange of risk-profiles, risky interactions between demand specification, possible technical solutions and environmental factors can be highlighted at a much earlier stage, and partners may be able to help each other in reducing the risks associated with the project. Further, any likelihood of the costs increasing can become clearer at a much earlier stage, enabling the client to take appropriate and timely decisions. In this way, mutual trust can increase. It should also be possible to adjust the risk profiles as the project develops. If the client organisation makes very high demands early on, in order to reduce its own risks, and then it appears that the high demands cannot be met, the client should be flexible to avoid the contractor having unnecessarily high costs.

Insights into price-quality ratio

Public clients have a primary interest in being able to justify the costs of projects within the political process. Ideally, therefore, they would like to have insights into the price-quality ratio of projects.

However, any attempt to use the price-quality ratio as a selection criterion in the contracting process, instead of the lowest price, entails the risk of less transparency. Contracting out based on the lowest price is essentially clear: the party with the lowest price gets the work. Quality is much harder to measure, and therefore to make transparent, than

price. For instance, how do you include the judgment of the planning authority, and who should assess the architectural appearance of a building? Subjective elements such as these are practically impossible to eliminate in the evaluation of such a criterion (see box 2).

Verifiable actions at the same time also need to be limited. Verification is necessary, but the client cannot demand that the building company continuously communicates and records every detail. Moreover, many of the elements of the transaction will already be controlled by quality systems and associated internal audits. However, it is essential that one can demonstrate any crucial decisions or actions, so that it can be shown that the company is delivering a good price-quality ratio.

**Box 2 Best practice: value analysis method NEN-AND-12973**

Construction orders are increasingly put to the market in the form of D&C (Design & Construct) contracts. Besides the execution, the design is also part of the competition. This promotes allocation on the basis of a good price-quality ratio rather than simply the lowest price. To achieve this, the quality must be measurable. To this end, the Stichting Bouwresearch [Building Research Foundation] has established a value analysis method NEN-AND-12973 (in SBR Report 140). Here the value is determined by dividing the points scored in an assessment of the functionality of the quotation by its price. The method can be promoted as reducing the risk of fraud by working with a two-envelope system in the tendering process. One envelope contains the description of the proposed construction that is then used to determine the number of quality points. The other envelope contains the price. Making the quality evaluation without knowing the accompanying price prevents working towards a desired result, and helps ensure that quality continues to play a full part in the final choice based on the best possible price-quality ratio (QS, 2005).

Assessment on the basis of selection and allotment criteria of client

Another theme in which there is considered to be too little transparency, is in the execution of the selection procedure. In making their choice, public clients must often weigh a number of interests against each other. As a consequence, it often remains unclear on which grounds contractors were selected to participate in the tendering or design stage, or allotted a contract for the execution stage. The client should give his motivations in making these choices (see also, Management Council, 2005 p.18). In this way, unsuccessful contractors can gain greater insights into which points they must improve on in order to qualify for this sort of project in the future. This corresponds with the criterion of reasonableness (Step 6 in Kaptein's checklist). When construction companies have made great efforts to participate in a tendering process, it is only reasonable that the client makes similar efforts to inform them of the reasons for their rejection.

Similarly, transparency in selection criteria also applies to construction companies when they take on the role of client. Subcontractors also wish to have greater insights into the reasons why they fail to acquire orders. Sometimes a general contractor selects a subcontractor who was not even invited to enter the tendering process, and passes over those subcontractors who were asked for a quotation. The reason may be that the successful subcontractor had given a quotation to a competitor, which was then submitted as part of the competitor's tender, and the general contractor, seeing what appears to be competitive pricing, then approaches the new subcontractor with a contract offer. However, communications about such decisions to the subcontractors involved are often very vague.

**Transparency of previous performance**

The perceived need for transparency is partly the result of the damaged image of the construction sector. Some building companies consider this negative image to be unjust. In their opinion, this only applies to a few rotten apples and it is not fair to paint them as typical of the sector.

Such a defence, however, is not an effective means of overcoming the lack of trust. It would be much more effective to take measures that result in removing the rotten apples. Enhancing the importance of the reputation mechanism could make an important contribution here. A powerful reputation mechanism could even deliver an important saving, if it reduced the transparency required in transactions. Companies would then use considerably less money in the preparation of tender responses. Various respondents also indicated in the interviews that transparency about past performances contributes to the transition process in the construction industry (see Box 3).

**Box 3 Transparency and the reputation mechanism: results of interviews**

*Consumer organisation:*
'Bouwend Nederland [Building Netherlands] and VEH [Own Home Society] work together in the Customer-oriented Building Foundation, in which the performance of builders is measured and the good ones rewarded with a hallmark.'

*Building enterprise:*
'We can learn from the Danish. They use databases about delivered performances when selecting partners.'

*Supplier:*
'It is not at all wrong to use a shortlist and to start complex projects using the track records of reliable relations. This could certainly be made clear and transparent with a set of criteria.'

*Branch and investigation organisation:*
'Transparency in the form of making lists of contractors and consultants including their delivered performances in past projects, for example the extent they exceeded budgets, their safety system, how they dealt with subcontractors and their completion quality. In Hong Kong there is a system for benchmarking between contractors. Both contractors and government see the advantages of a transparent performance indication system.'

Various instruments can be deployed with respect to the reputation mechanism. Table 4 provides a list of distinctive forms of information that could influence the reputation of actors in the construction sector and help distinguish the responsible ones from those with more questionable practices.

**Table 4 Information forms that could influence reputation**

| LEVEL | | |
|---|---|---|
| **Sector** | **Individual building company** | **Client** |
| Supervision of code of conduct (SBIB) | Satisfaction checks | Track records |
| Reputation index | Annual report | |
| Publications about Best Practices / Prices | Code of conduct | |
| Blacklists | Certification (VCA, ISO9001, FCS, KOMO-SKH, etc.), labour conditions policy plan | |
| Whistleblower arrangements | Transparency scan | |

Sector level

At the sector level, there are now various structures in place that enhance the reputation mechanism. One example is the Foundation for the Assessment of the Construction Industry Integrity (SBIB: see www.sbib.nl). The SBIB supports the integrity policies of companies in the construction industry, makes these visible for third parties and monitors the companies' compliance with their stated policies. Its activities are concentrated on the introduction of, and compliance with, business codes. Bouwend Nederland, an association for the sector, advises building companies on how to formulate, introduce and observe a code of conduct. The SBIB registers those companies that have an acceptable company code in a public register and provides information about the criteria that have to be met to gain entry to this register. Furthermore, the SBIB monitors compliance with the stipulations in the business code and applies sanctions in the event of shortcomings, and has instituted a Committee of Supervision, consisting of independent external experts in the fields of business ethics and competition. This committee deals with complaints about infringements of the business codes of companies that are registered with the SBIB and gives binding advice to the SBIB management about sanctions that are to be imposed.

Other instruments that are possible at the sector level include the compiling of a reputation index, publications about best practices and the awarding of contracts following open contests[9], a blacklist of companies that have delivered poor performances in the past and a whistleblower arrangement that makes it easier for individual employees to make abuses public.

A general problem with all these instruments is that they are only of limited use in selecting the 'best' company for a specific contract. Blacklists are, for example, not much help in distinguishing among the good companies, while measuring the track record through a

[9] One area where contests are used is in the design of a new development. Design contests often involve a procedure that invites potential partners to submit plans or designs that are then judged by a jury. This approach is most commonly seen in spatial planning, city planning, architecture, road and hydraulic engineering and automatic data processing.

reputation index is likely to be complex and offers information that is too general for specific projects. The various forms of information could effectively serve to keep the companies with the worst profiles out of the selection process by setting a form of threshold, but they do not function well as a selection mechanism.

Individual building company

Also at the level of individual companies, there are various instruments that could enable insights into past performance. However, as with the suggested instruments at the sector level, it is questionable whether the instruments referred to – annual reports, codes of conduct, certification, etc. – could actually influence the selection of a company. The information that annual reports offer (for example about accidents) is often too general to use as a predictor of the performance of specific parts of a company in a future project.[10] Further, some instruments, such as certification, have little influence on reputation. For small companies it is generally the case that, if the competition pressure is high and the market is weak, only the price is decisive.[11] For large companies too, these instruments have little influence on the market process. All the large companies meet all such criteria and therefore they no longer help distinguish among them. Certification is usually based on meeting minimum criteria and this both permits and hides differences between companies.

During the interviews, respondents were also asked how they value the introduction of a transparency measurement or scan. Box 4 gives some of the various reactions to this question. A majority of the respondents saw some advantages in such an instrument but, at the same time, were anxious about the bureaucracy that such an indicator would entail. This seemed to be the main objection of those who rejected such an instrument.

[10] For directives about transparency in annual reports, see FD, 2002; Raad voor de Jaarverslaggeving [Council for the annual report], 2003; Ministry of Economic Affairs, 2004

[11] However, for the smaller building companies certification does enhance access to assignments for government institutions.

**Box 4 Desirability of transparency scan: comments from interviews**

**Pro:**

*Customer:*
'Tools such as a transparency scan will be useful, but look out for the bureaucracy….we need success stories concerning the new manner of working, of which everybody can see the advantages.'

*Building enterprise:*
'A transparency test seems to me to be a nice tool.'

*Engineering firm:*
'A transparency scan could be a handy tool to check one's own transparency from time to time.'

*Supplier:*
'For the discussion a transparency measurement would be nice. It would make it all more concrete. If one can demonstrate that there is a change going on, this produces confidence, both internally and externally.'

*Branch and investigation organisations*
'A transparency scan could be a usable tool, in the first instance especially as an internal instrument.'
'A transparency scan would be a valuable instrument. To measure is to know.'

**Against:**
*Engineering firm:*
'There is no need for a typical tool to promote transparency.'

*Building enterprise:*
'Please, no transparency indicator. Annual figures offer enough openness of affairs in this respect.'

*Supplier:*
'Please, no transparency scan or the like. This will only result in more bureaucracy. What is needed is addressing people.'

Clients

Finally, an important role is reserved for clients in giving shape to the reputation mechanism. As an example, ProRail is active in the development of information systems, in which the performance of contractors is recorded with a view to the selection of contractors for future projects (see Box 5). Moreover, the contractors involved get insight into this information. Of great importance here of course is that the parameters on which the reputation is based are good and objective. Subjective elements of reputation assessment can have huge consequences for companies.

**Box 5 Best practice: Recognition system of ProRail**

ProRail applies a recognition system to a number of branches (engineering companies, cable contractors, drilling companies, rail contractors, maintenance contractors and workplace security companies). Through this system, a company acquires a qualification. With this, it can participate in any tender for which the recognition system is applicable.

To make this arrangement work, ProRail has instituted a recognition committee and a Tender Board. The recognition committee uses a list of questions referring to exclusion criteria like convictions in criminal law, financial capacity and technical and organisational competences. By using this in combination with enclosed references, it evaluates applications to see if they qualify for recognition. It advises the Tender Board, which then decides whether the recognition will be honoured or not. The main criteria for recognition are financial and economic support, social suitability and technical and organisational competence. In allotting contracts, experience, tender performance (good price-quality ratio) and past performance (including completion on time and within budget) are important. Furthermore, there are a number of exclusion criteria that include consideration of the anticipated continuity of the enterprise. The list of recognised companies is publicly accessible through the ProRail website. Once a contractor is recognised, this normally remains valid for three years. The Tender Board may prematurely terminate such a status, and if so it will inform the company concerned in writing giving its reasons.

It is also noteworthy that, in the tendering process, ProRail does not only make the selection criteria public but also the weighting factors. ProRail also works with ISO45503, a quality check for the tender procedure. Certifying institutions execute audits.

The effectiveness of the approach used by ProRail is seen in the fact that they seldom need to resort to arbitration. Having the Tender Board ensures that the submission process functions increasingly smoothly. The procedures force everybody to work in a new manner and ensure that the old culture cannot resurface.

## Conclusions

The Dutch construction industry is working through a transition process focused on improving its market operation, integral processes and societal added value. In this transition, transparency between clients and executing parties is of great importance. Related to this, the objective of this article has been to take stock of those aspects in the construction industry that have the most urgent need for greater transparency.

Transparency is defined here as providing insights into matters that are relevant for the parties involved. Parties such as public and private clients, general contractors and subcontractors can, with the right information, make well-founded decisions with regard to the transactions that they agree with one another. Moreover, the transparency contributes to being answerable to the government and the general public. In this article we focus on the transparency issues between public clients and executing parties in the Dutch construction sector.

On the basis of interviews with managers from various parts of the construction industry, we have assessed what the needs are in terms of transparency:

1. Public clients and executing parties have diverse interests and various risk profiles. Through an early exchange of risk profiles, high-risk interactions between demand specification, possible technical solutions and environmental factors can be identified at a much earlier stage.
2. It is also important to try to find a way to judge quality in a more robust and transparent manner. Any attempt to use a quality-price ratio as a selection criterion in the contracting process, rather than the lowest price, entails the risk of the process becoming less transparent since quality is much harder to measure than price.
3. Transparency must also be enhanced in the selection procedure. The client should be transparent in the criteria it uses in allotting contracts and rejecting bidders. This enables participants in a tender to learn and to improve their bids for subsequent tenders.
4. The preceding themes are related to transparency both prior to and during the building process. For good operation of the market in the construction industry, it is also important to enhance the reputation mechanism through greater transparency concerning past performance.

In attempting to enhance the reputation mechanism, it is important to recognise that measuring performance, as with quality, is complex. Reputation indices often only offer general information and are consequently too general to be of much use when it comes to specific projects. However, they are usable as entry thresholds or in a preselection mechanism to keep out the rotten apples. In this way they could contribute to enhancing the image of the construction industry.

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